Serial No.: 10/634,779 Docket No. SH-0037US

**RYU.014** 

## **REMARKS**

A Request for Continued Examination is submitted concurrently herewith.

Claims 1-10 and 20-29 are all the claims presently pending in the application.

Further to the Amendment under 37 C.F.R. § 1.116 filed on January 30, 2006 (which is incorporated herein in its entirety), Applicants respectfully traverse the Examiner's rejections for the following additional reasons.

# I. THE ALLEGED PRIOR ART REJECTIONS

Claims 1-4, 6-10 and 25-27 stand rejected under 35 U.S.C. § 102(b) as allegedly unpatentable over Bachmann et al. (U. S. Pat. No. 5,067,793). Claim 28 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Bachmann. Claim 5 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Bachmann et al. in view of Rau et al. (U.S. Patent No. Re. 30,883).

# THE CLAIMED INVENTION

To summarize, an optical fiber pre-form as exemplarily recited in the present invention provides, for example, the following important features.

- (1) First, the claimed invention provide an optical fiber pre-form in which an inside area and an outside area are set in a certain area, which is equivalent to two times the mode field diameter. Specifically, the above certain area is also a unique area on which light at a wavelength of about 1385 nm propagates through an optical fiber.
- (2) Second, the claimed invention recites that a radial viscosity distribution in the outside area is greater than that in the inside area.

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Thus, according to the exemplary aspects of the claimed invention, since the optical fiber pre-form of the present invention has the above features (1) and (2), even if the optical fiber pulled from the pre-form is exposed to a hydrogen atmosphere, the rise of the transmission loss (OH peak) at a wavelength of 1385nm is suppressed due to the control of a radial viscosity distribution. Such is an important advantage of the present invention.

## **BACHMAN**

In comparison, in Bachman et al (U.S. Patent No. 5,067,793), like the present invention, in the optical fiber pre-form, a radial viscosity distribution in an outside area is relatively greater than that in an inside area. However, there clearly is no teaching or suggestion that the outside and inside areas are set in a certain area, which is equivalent to two times the mode field diameter. Accordingly, the following drawback is raised by Bachman.

That is if the outside area having a relatively greater radial viscosity distribution is accidentally set in the inside area of the above certain area, then a defect would be generated in the inside area of the above certain area. Specifically, the above certain area is also the area on which light at a wavelength of about 1385 nm propagates though an optical fiber. As a result, if the optical fiber is exposed to a hydrogen atmosphere, the OH peak rises due to the generation of the OH group. Consequentially, the transmission loss (OH peak) at a wavelength of 1385nm is raised.

For the foregoing reasons, Bachman clearly does not (and cannot) solve the problems and drawbacks accompanying the conventional art of the present invention, which are addressed and solved by the novel features of the claimed invention. Thus, Bachman clearly does not anticipate or, for that matter render obvious the claimed invention.

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Therefore, Applicant would respectfully submit that there are elements of the claimed invention that are not taught or suggested by Bachmann. Therefore, the Examiner is respectfully requested to withdraw this rejection.

#### II. CONCLUSION

In view of the foregoing, Applicant submits that claims 1-10 and 20-29, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully submitted,

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